ENVOY TF500

PRODUCT TECHNICAL DATA

FULL DESCRIPTION	:	ENVOY TF500 ANTIFOULING PAINT
MATERIAL TYPE	:	Tin free ablative antifouling based on a high performance polymeric resin system.
RECOMMENDED USE	:	Provides protection against a wide range of grass and shell fouling where the use of tin-based biocides is precluded.
	:	Specifications utilising this product may be varied to provide the most cost effective system to meet operating conditions and service requirements.
	:	Compatible with an extensive range of existing bottom systems.
ENDORSEMENTS	:	FEPA approved - HSE No. 7639
	:	Approved by MoD/DRA AFS No.2293
	:	IMO Antifouling Convention Compliant (AFS/CONF/26) - Lloyds Certificate Ref: MMDE/2006/2217
RECOMMENDED APPLICATION METHODS	:	Airless spray
	:	Brush (for small areas and touch up only)
	:	Roller
COLOUR AVAILABILITY	:	Off White
	:	Red
	:	Brown
	:	Dark Blue
	:	Black
FLASH POINT	:	8°C
% SOLIDS BY VOLUME	:	63 ± 3% (ASTM-D2697-91)
V.O.C.	:	316 grammes/litre determined practically in accordance with UK Regulations PG6/22
	:	388 grammes/litre calculated from formulation to satisfy EC S.E.D.
	:	169 grammes/kilo content by weight from formulation to satisfy EC S.E.D.

TYPICAL THICKNESS

	Dry film thickness	**Wet film thickness**	**Theoretical coverage**
:	75 microns	119 microns	8.4 m^2/ltr*

** This figure makes no allowance for surface profile, uneven application, overspray or losses in containers and equipment. Film thickness will vary depending on actual use and specification.*

PRACTICAL APPLICATION RATES- microns per coat

		Airless Spray	**Roller**
:	Dry	75*	50
:	Wet	119	79

** Maximum sag tolerance with overlap typically 150µm dry by airless spray.*

AVERAGE DRYING TIMES

		At 15°C	**At 23°C**
To touch	:	45 minutes	30 minutes
To recoat	:	8 hours	6 hours
To handle	:	24 hours	16 hours

These figures are given as a guide only. Factors such as air movement, humidity and build up of underlying coatings must also be considered.

RECOMMENDED THINNER	:	Cleanser/Thinner No. 5 (for brush and roller application)
	:	Cleanser/Thinner No. 9 (for spray application)
RECOMMENDED PRIMERS	:	Resistex M535 Pitch Free Underwater Coating
RECOMMENDED TOPCOATS	:	Indefinitely self overcoatable
	:	For details of overcoating by other materials, consult Sherwin-Williams
PACKAGE	:	Single component material.
Pack Size	:	15 litre units
Weight	:	Red 2.3 kg/litre (may vary with shade).
Shelf Life	:	2 years from date of manufacture or 'Use By' date where specified

SURFACE PREPARATION:

Ensure surfaces to be coated are clean, dry and free from all surface contamination.

Previous antifouling surfaces should be thoroughly high pressure washed and allowed to dry out.

Damaged coatings should be re-prepared by spot blasting or power cleaning, and touched-up with anticorrosive primer before antifouling.

Where conversion of a bottom from a high performance system to ablative is required it may be necessary to apply an overall coat of compatible sealer.

APPLICATION EQUIPMENT:

Airless Spray

Nozzle Size	:	0.46-0.53mm (18-21 thou)
Fan Angle	:	80°
Operating Pressure	:	170-200kg/cm² (2500-3000 psi)

The airless spray details given above are intended as a guide only. Details such as fluid hose length and diameter, paint temperature and job shape and size all have an effect on the spray tip and operating pressure chosen. However, the operating pressure should be the lowest possible consistent with satisfactory atomisation. As conditions will vary from job to job, it is the applicators' responsibility to ensure that the equipment in use has been set up to give the best results. If in doubt Sherwin Williams should be consulted.

Brush

An addition of 5% Cleanser Thinner No.5 is necessary, before brush application can commence, even then it is only suitable for application to small areas. Application of more than one coat may be necessary to give equivalent dry film thickness to a single spray applied coat.

Roller

The material is suitable for roller application. Application of more than one coat may be necessary to give equivalent dry film thickness to a single spray applied coat. At temperatures below 10ºC, 5% thinning with Cleanser Thinner No. 5 may be necessary.

APPLICATION CONDITIONS AND OVERCOATING:

In conditions of high relative humidity, i.e. 80-85% good ventilation conditions are essential. Substrate temperature should be at least 3°C above the dew point and always above 0°C.

At application temperatures below 10°C, drying times will be significantly extended, and spraying characteristics may be impaired.

Application at ambient air temperatures below 5°C is not recommended.

Due to the high solids content of this material, it is not normally possible to achieve optimum film formation at dry film thicknesses of less than 70 microns by spray application. Where film thicknesses down to 50 microns are specified, the material may be thinned up to 10% with Cleanser/Thinner No.9. Thinning should be carried out with thorough stirring immediately before use.

N.B. This thinning will make the material non-compliant with regards to VOC legislation.

If it is desired to overcoat outside the times stated on the data sheet, please seek advice of Sherwin Williams.

ADDITIONAL NOTES:

Drying times should be considered as a guide only.

After application, the coating should be allowed a minimum of 16 hours drying prior to immersion.

The drying period is a guide only and may need to be increased considerably if multicoats have been applied over an already high thickness of spent antifoulings. In these instances the old system can act as a sponge and induce solvent strike-back. The hardness and integrity of the whole bottom system must be checked before it is immersed.

Numerical values quoted for physical data may vary slightly from batch to batch.

HEALTH AND SAFETY:

Consult Product Health and Safety Data Sheet for information on safe handling and application of this product.